

**ABSTRACT OF THE DISCLOSURE**

Disclosed are an apparatus and a method for measuring the speed of a moving body using an accelerometer. A value of earth's gravitational acceleration component is detected from the measurements from the accelerometer and is removed from the acceleration value. Then, the acceleration value, after removal of the earth's gravitational acceleration component, is used to obtain the speed of the moving body. The earth's gravitational acceleration component is detected using a movement average at a point of time when the speed of the moving body is to be measured. By using the magnitude of a difference between a value obtained by removing an x-axis movement average from an x-axis measurement from the two-axis accelerometer and another value obtained by removing a y-axis movement average from a y-axis measurement from the two-axis accelerometer, it is possible to regulate a window for calculating the movement average and a weight value to each of the measurements included in the window. The present invention saves cost by reducing the number of expensive gyroscopes in implementing a speed measuring apparatus for vehicles. In addition, the speed measuring apparatus designed according to the present invention is superior to that designed according to the prior art in performance and improves the accuracy of position estimation in position estimation apparatuses for vehicles.